



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-0818; Project Identifier AD-2022-00299-R]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Leonardo S.p.a. Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain Leonardo S.p.a. Model A109, A109A, A109A II, A109C, A109K2, A109E, A109S, and AW109SP helicopters modified by Supplemental Type Certificate (STC) SR01812LA. This proposed AD was prompted by a report of certain floats not deploying due to a faulty plunger assembly. This proposed AD would require repairing or replacing certain float assemblies. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- For service information identified in this NPRM, contact Apical Industries, Inc., Jason Gardiner, 3030 Enterprise Ct., Vista, CA, 92081, United States; phone: (760) 542-

2096; email: [jgardiner@dartaero.com](mailto:jgardiner@dartaero.com); website: <https://www.dartaerospace.com/>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0818; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Johann S. Magana, Aerospace Engineer, Cabin Safety & Environmental Systems Section, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5322; email [johann.magana@faa.gov](mailto:johann.magana@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0818; Project Identifier AD-2022-00299-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

## **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Johann S. Magana, Aerospace Engineer, Cabin Safety & Environmental Systems Section, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5322; email [johann.magana@faa.gov](mailto:johann.magana@faa.gov). Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

The FAA received a report of two forward floats not deploying after an inadvertent activation. It was discovered that the plunger assembly caused the forward floats to not deploy. Further investigation revealed that a design change in 2009 of the plunger assembly inadvertently changed the position of the bushing from a press fit to a threaded fit. The dimensions for the threaded fit were preventing the bushing from fully clearing the ball bearings when bottom out on the solenoid on the valve assemblies. The plunger assembly is contained within the float assembly and reservoir assembly. An emergency float kit consists of float assemblies, reservoir assemblies, and additional components. These emergency float kits (634.4100 Kit Series) are installed on Leonardo S.p.a. Model A109, A109A, A109A II, A109C, A109K2, A109E, A109S, and AW109SP helicopters modified by STC SR01812LA; this STC is held by Apical Industries, Inc., d/b/a DART Aerospace (DART). This condition, if not addressed, could result in the helicopter either rolling to one side or capsizing in an event of an emergency landing on water.

## **FAA's Determination**

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type designs.

## **Related Service Information**

The FAA reviewed DART Service Bulletin SB2021-05, dated December 6, 2021. This service bulletin specifies replacing certain serial-numbered float assemblies or, if the serial number is not included as part of the service bulletin, contacting DART to validate effectivity. The service bulletin also provides procedures for removing the float assemblies from the helicopter, discharging the reservoirs, shipping the float assemblies, and re-installing the float assemblies.

The FAA also reviewed DART's Instructions for Continued Airworthiness ICA109-1, Rev. U, dated October 27, 2020. This service information provides description, operation, disassembly, inspection, assembly, repair, and testing instructions as well as an illustrated parts list for emergency float kits and emergency float with life raft kits.

## **Proposed AD Requirements in this NPRM**

This proposed AD would require repairing or replacing each float assembly part number 644.0501, 644.0502, 644.0503, 644.0504, 644.0505, or 644.0506 in certain emergency float kits with a method approved by the Manager, Los Angeles ACO Branch, FAA. These actions would be required within 300 hours time-in-service or 6 months after the effective date of the final rule of this proposed AD, whichever occurs first.

## **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 25 helicopters of U.S. registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Replacing each float assembly would take about 4 work-hours for an estimated cost of \$340 per helicopter and up to \$8,500 for the U.S. fleet. The FAA has received no definitive data that would enable the FAA to provide parts cost estimates for the proposed actions; however, according to the manufacturer, some or all of the costs of this proposed

AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Leonardo S.p.a.:** Docket No. FAA-2022-0818; Project Identifier AD-2022-00299-R.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Leonardo S.p.a. Model A109, A109A, A109A II, A109C, A109K2, A109E, A109S, and AW109SP helicopters, certificated in any category, modified by Supplemental Type Certificate SR01812LA with A109 Float (with/without Liferrafts System) DART Aerospace 634.4100 Kit Series part number (P/N) 634.4101, 634.4102, 634.4103, 634.4104, 634.4106, or 634.4107 with float assembly P/N 644.0501, 644.0502, 644.0503, 644.0504, 644.0505, or 644.0506 installed.

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code: 2560, Emergency Equipment.

#### **(e) Unsafe Condition**

This AD was prompted by a report of two forward floats not deploying after an inadvertent activation. The FAA is issuing this AD to ensure the affected floats work as intended. The unsafe condition, if not addressed, could result in the helicopter either rolling to one side or capsizing in an event of an emergency landing on water.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

Within 300 hours time-in-service or within 6 months after the effective date of this AD, whichever occurs first, remove each float assembly identified in paragraph (c) of this AD and repair or replace it in accordance with a method approved by the Manager, Los Angeles ACO Branch, FAA. For a repair or replacement method to be approved by the Manager, Los Angeles ACO Branch, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

For more information about this AD, contact Johann S. Magana, Aerospace Engineer, Cabin Safety & Environmental Systems Section, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5322; email johann.magana@faa.gov.

Issued on July 5, 2022.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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